



# FACT SHEET

Permit Number: WA-002660-3  
Public Notice start date: March 28, 2001  
Public Notice expiration date: April 27, 2001  
Technical Contact: Lisa Jacobsen 206/553-6917  
1-800-424-4372 (within Region 10)  
jacobsen.lisa@epa.gov

**The United States Environmental Protection Agency (EPA)  
Plans To Issue A  
National Pollutant Discharge Elimination System (NPDES) Permit  
To:**

**The Quinault Indian Nation  
Moclips River Estates  
Wastewater Treatment Plant (WWTP)  
P.O. Box 189  
Taholah, Washington 98587**

**EPA Proposes NPDES Permit Issuance.**

EPA proposes to issue an NPDES permit to the Quinault Indian Nation, Moclips River Estates WWTP. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to Moclips River. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations and other conditions
- a map and description of the discharge location
- detailed technical material supporting the conditions in the permit

**The EPA Region X Proposes Certification.**

EPA is certifying the NPDES permit for the Quinault Indian Nation, under section 401 of the Clean Water Act.

**Public Comment.**

Persons wishing to comment on or request a Public Hearing for the draft permit may do so in writing by the expiration date of the Public Notice. A request for a Public Hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

After the Public Notice expires, and all comments have been considered, EPA's Director for the Office of Water will make a final decision regarding permit reissuance.

Persons wishing to comment on EPA Certification should submit written comments by the Public Notice expiration date to the U.S. Environmental Protection Agency, Region X, 1200 Sixth Avenue, OW-130, Seattle, Washington 98101.

If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If comments are received, EPA will address the comments and issue the permit. The permit will become effective 33 days after the issuance date, unless an appeal is submitted to Environmental Appeals Board within 33 days.

**Documents are Available for Review.**

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (See address below). Draft permits, Fact Sheets, and other information can also be found by visiting the Region 10 website at [www.epa.gov/r10earth/water.htm](http://www.epa.gov/r10earth/water.htm).

United States Environmental Protection Agency  
Region 10  
1200 Sixth Avenue, OW-130  
Seattle, Washington 98101  
(206) 553-2108 or  
1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The Fact Sheet and draft permit are also available at:

The Quinault Indian Nation  
1214 Aalis Drive 1214 Aalis Drive  
Taholah, Washington 98587

## TABLE OF CONTENTS

I.	<b>APPLICANT</b>	4
II.	FACILITY INFORMATION	4
	A. <u>Treatment Plant Description</u>	4
	B. <u>Background Information</u>	4
III.	RECEIVING WATER	4
	A. <u>Outfall Location/Receiving Water</u>	4
	B. <u>Water Quality Standards</u>	5
IV.	EFFLUENT LIMITATIONS	5
V.	SPECIAL CONDITIONS	6
VI.	MONITORING REQUIREMENTS	7
VII.	OTHER PERMIT CONDITIONS	8
	A. <u>Upstream and Downstream Ambient Monitoring</u>	8
	B. <u>Quality Assurance Plan</u>	8
	D. <u>Operation and Maintenance Plan</u>	9
VIII.	OTHER LEGAL REQUIREMENTS	9
	A. <u>Endangered Species Act</u>	9
	B. <u>CWA and 401 Certification</u>	9
	C. <u>Permit Expiration</u>	10
APPENDIX A		
WASTEWATER TREATMENT PLANT LOCATION		
APPENDIX B		
WATER QUALITY STANDARDS		
APPENDIX C		
BASIS OF EFFLUENT LIMITATIONS		
APPENDIX D		
ENDANGERED SPECIES ACT		

## **I. APPLICANT**

Quinault Indian Nation, Moclips River Estates WWTP  
NPDES Permit No.: WA-002660-3

Facility Mailing Address:  
P.O. Box 189  
Taholah, Washington 98587

## **II. FACILITY INFORMATION**

### **A. Treatment Plant Description**

The Quinault Indian Nation intends to construct, own, operate, and have maintenance responsibility for a facility that will treat domestic sewage from local residents and commercial establishments. The facility's application indicates that the design flow of the facility is 0.035 million gallons per day (mgd). Domestic wastewater will be treated through an extended aeration activated sludge process with drum microfiltration. Effluent will be disinfected using ultraviolet disinfection prior to discharge and discharged year-round to the Moclips River approximately one half mile south of the plant. Domestic sludge will be transferred to another municipality for storage and ultimate disposal.

All equipment will be in place by the time discharge commences in accordance with the permit application.

### **B. Background Information**

The Quinault Indian Nation filed a General Form 1 and NPDES Form 2A that was received by EPA on August 1, 2000.

A map has been included in Appendix A which shows the location of the treatment plant and the discharge location.

## **III. RECEIVING WATER**

### **A. Outfall Location/Receiving Water**

The treated effluent from the Quinault Indian Nation Moclips River Estates wastewater treatment facility will be discharged from Outfall 001, located at latitude 47° 14' 46" and longitude 124° 11' 01", to the Moclips River.

B. Water Quality Standards

The Quinault Indian Nation does not currently have its own water quality standards. Until they establish their own regulations for water quality, Washington State's standards will be used as a reference, although they are not legally binding within the Quinault Indian Reservation.

A State's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria, and an anti-degradation policy. The use classification system designates the beneficial uses (such as cold water aquatic life communities, contact recreation, etc.) that each water body is expected to achieve. The numeric and/or narrative water quality criteria are the criteria deemed necessary to support the beneficial use classification of each water body. The anti-degradation policy represents a three tiered approach to maintain and protect various levels of water quality and uses.

The Washington *Water Quality Standards for Surface Waters of the State of Washington* (WAC 173-201A-030) protect the Moclips River off the Quinault reservation for the following beneficial use classifications: Class A (excellent), which includes the following characteristic uses: water supply; stock watering; fish and shellfish (including salmonid, other fish, clam, oyster, mussel, and crustaceans and other shellfish) rearing, spawning, and harvesting; wildlife habitat; recreation (including primary contact recreation, sport fishing, boating, and aesthetic enjoyment); and commerce and navigation.

The criteria that the State of Washington has deemed necessary to protect the beneficial uses for the Moclips River off the reservation, and the State's anti-degradation policy are summarized in Appendix B.

**IV. EFFLUENT LIMITATIONS**

In general, the Clean Water Act requires that the effluent limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based limits. A technology based effluent limit requires a minimum level of treatment for municipal point sources based on currently available treatment technologies. A water quality based effluent limit is designed to ensure that the water quality standards of a waterbody are being met. For more information on deriving technology-based effluent limits and water quality-based effluent limits see Appendix B. The following summarizes the proposed effluent limitations that are in the draft permit.

1. The pH range shall be between 6.5 - 8.5 standard units.
2. Removal Requirements for BOD<sub>5</sub>: For any month, the monthly average effluent BOD<sub>5</sub> load shall not exceed 15 percent of the monthly average influent BOD<sub>5</sub> load.
3. Fecal coliform limits shall not exceed a monthly geometric mean of 200 organisms/100 mL, and a weekly geometric mean of 400 organisms/100 mL.
4. Table 1, below, presents the proposed effluent limits for BOD<sub>5</sub> and TSS, and fecal coliform bacteria. Monitoring requirements are proposed for: effluent E. coli bacteria, pH, and total ammonia; upstream temperature, pH, and total ammonia; and downstream temperature, total ammonia, and pH.

**Table 1: Monthly, Weekly and Daily Effluent Limitations**

Parameters	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
BOD <sub>5</sub>	30 mg/L (9 lbs/day)	45 mg/L (13 lbs/day)	---
TSS	30 mg/L (9 lbs/day)	45 mg/L (13 lbs/day)	---
Fecal coliform bacteria	200	400	—

The draft permit prohibits the discharge of waste streams that are not part of the normal operation of the facility, as reported in the permit application. The draft permit also requires that the discharge be free from floating suspended, or submerged matter in concentration that cause/may cause a nuisance.

## **V. SPECIAL CONDITIONS**

The proposed NPDES wastewater permit does not contain requirements related to sewage sludge. EPA Region 10 has recently decided to change the regional approach to permitting the disposal of biosolids ("sewage sludge" or sludge") and to separate wastewater and sludge into separate permits. EPA will issue a sludge only permit to this facility at a later date. Sludge permit coverage may be in the form of a general permit in which EPA can cover and better serve multiple facilities with similar limitations and management requirements.

The Clean Water Act (CWA) prohibits the use of disposal of biosolids not in compliance with 40 CFR 503 and provides EPA with the authority to enforce these regulations directly (even in the absence of a permit). Removal of specific sewage sludge requirements from the proposed permit does not violate the CWA

and does not preclude the facility from complying with the requirements of these regulations. If the applicant performs sludge activities in accordance with the federal regulations, the environment should be protected until such time as a sludge only permit is prepared for this facility.

The proposed permit requires the permittee to submit an application for a biosolids permit and, in the future, update the biosolids permit application for this facility as necessary.

## **VI. MONITORING REQUIREMENTS**

Section 308 of the Clean Water Act and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The Permittee is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports (DMRs) to EPA and the Quinault Indian Nation.

Table 2 presents the proposed effluent monitoring requirements.

**TABLE 2: Quinault Indian Nation, Moclips River Estates Wastewater Treatment Plant Monitoring Requirements**

Parameter	Sample Location	Sample Frequency	Sample Type
Flow, mgd	Influent or Effluent	Continuous	Recording
BOD <sub>5</sub> , mg/L	Influent and Effluent	1/month	grab
TSS, mg/L	Influent and Effluent	1/month	grab
pH, standard units	Effluent	1/week	grab
Fecal coliform Bacteria, organisms/100 mL	Effluent	1/month	grab
E. coli Bacteria, organisms/100 mL	Effluent	1/month	grab
Total Ammonia as N, mg/L <sup>1</sup>	Effluent	1/quarterly	grab
Footnote:			
1 The monitoring shall start at the beginning of the permit term and end after 5 years			

## VII. OTHER PERMIT CONDITIONS

### A. Upstream and Downstream Ambient Monitoring

The permittee shall also measure temperature, pH, and total ammonia in the Moclips River at two points (one upstream and one downstream of Outfall 001) on a quarterly basis for the duration of this permit.

### B. Quality Assurance Plan

The federal regulation at 40 CFR 122.41(e) requires the Permittee to develop and submit a Quality Assurance Plan to ensure that the monitoring data submitted are accurate and to explain data anomalies if they occur. The Permittee is required to complete a Quality Assurance Plan within 120 days of the effective date of the final permit. The Quality Assurance Plan shall consist of standard operating procedures the Permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting.

### C. Additional Permit Provisions

Sections IV of the draft permit contain standard regulatory language that must be included in all NPDES permits. Because they are regulations, they cannot be challenged in the context of an NPDES permit action. The



standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

D. Operation and Maintenance Plan

Section 402 of the Clean Water Act and federal regulations 40 CFR 122.44(k)(2) and (3) authorize EPA to require best management practices, or BMPs, in NPDES permits. BMPs are measures for controlling the generation of pollutants and their release to waterways. For municipal facilities, these measures are typically included in the facility's Operation & Maintenance (O&M) plan. These measures are important tools for waste minimization and pollution prevention.

The draft permit requires the Quinault Indian Nation, Moclips River Estates WWTP to incorporate appropriate BMPs into their O&M plan within 180 days of the effective date of the final permit. Specifically, the Indian Nation must consider spill prevention and control, optimization of chemical use, public education aimed at controlling the introduction of household hazardous materials to the sewer system, and water conservation. To the extent that any of these issues have already been addressed, the Indian Nation need only reference the appropriate document in its O&M plan. The O&M plan must be revised as new practices are developed.

As part of proper O&M, the draft permit requires the Indian Nation to develop a facility plan when the annual average flow exceeds 85 percent of the design flow of the plant (0.035 mgd). This plan requires the Indian Nation to develop a strategy for remaining in compliance with effluent limits in the permit.

## VIII. OTHER LEGAL REQUIREMENTS

A. Endangered Species Act

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) if their actions could adversely affect any threatened or endangered species. See Appendix C for further details.

B. CWA and 401 Certification

Section 401 of the Clean Water Act requires EPA to certify before issuing a final permit. Since the discharge is from a facility located within the boundaries of the Quinault Indian Reservation, the provisions of Section 401 of the Clean Water Act requiring state certification of the permit do not

apply. EPA will certify in accordance with Section 401.

C. Permit Expiration

This permit will expire five years from the effective date of the permit.

**APPENDIX A**  
WASTEWATER TREATMENT PLANT LOCATION

**APPENDIX B**  
**WATER QUALITY STANDARDS**

A. Water Quality Criteria

For the Quinault Indian Nation, Moclips River Estates discharge, the following water quality criteria are necessary for the protection of the beneficial uses of the Moclips River:

1. WAC 173.201A.030.02.c.i.a - Freshwater fecal coliform organisms shall both not exceed a geometric mean value of 100 colonies/100mL nor have more than 10 percent of all samples obtained for calculating the geometric mean value exceeding 200 colonies/100mL.
2. WAC 173.201A.030.02.c.v - pH shall be within a range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.

B. Anti-Degradation Policy

The State of Washington has adopted an anti-degradation policy as part of their water quality standards. The Moclips River is a class A waterbody; therefore, water quality shall be maintained and protected from the impacts of point and nonpoint source activities. An NPDES permit cannot be issued that would result in the water quality criteria being violated. The draft permit contains effluent limits which ensures that the existing beneficial uses for the Moclips River will be maintained.

**APPENDIX C**  
**BASIS OF EFFLUENT LIMITATIONS**

The CWA requires Publicly Owned Treatment Works to meet performance-based requirements (also known as technology based effluent limits) based on available wastewater treatment technology. EPA may find, by analyzing the effect of an effluent discharge on the receiving water, that technology based effluent limits are not sufficiently stringent to meet water quality standards. In such cases, EPA is required to develop more stringent, water quality-based effluent limits designed to ensure that water quality standards are met. Therefore, this permit will require ambient monitoring of upstream and downstream waters in the Moclips River to determine whether instream water-quality criteria are being met. Water quality-based effluent limits may be developed for subsequent NPDES discharge permits should they be required. The following explains in more detail the derivation of technology based effluent limits and water quality based effluent limits.

**A. Technology-Based Effluent Limitations**

EPA methodology and Federal regulations at (40 CFR § 122.45 (b) and 122.45 (f)) require BOD<sub>5</sub> and TSS limitations to be expressed as mass based limits using the design flow (0.035 mgd) of the facility. Mass based limits in lbs/day are typically derived by multiplying the design flow in mgd by the concentration limit in mg/l by a conversion factor of 8.34.

For example:

BOD<sub>5</sub> loading, monthly average = 30 mg/L X 0.035 mgd X 8.34 = 9 lbs/day

Therefore, the permit loading limits are proposed to be:

<u>Parameter</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Percent Removal</u>
Biochemical Oxygen Demand (5-day) lbs/day	9	13	85

**B. Water Quality-Based Evaluation****1. Statutory Basis for Water Quality-Based Limits**

The NPDES regulation (40 CFR 122.44(d)(1)) implementing section 301 (b)(1)(C) of the CWA requires that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard, including narrative criteria for water quality. In the case of discharges to waters of a tribe, these limits do not apply until the discharge leaves the reservation and reaches waters of the state.

The regulations require that this evaluation be made using procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant in the effluent, species sensitivity (for toxicity), and where appropriate, dilution in the receiving water. The limits must be stringent enough to ensure that water quality standards are met, and must be consistent with any available wasteload allocation.

**2. Reasonable Potential Determination**

When evaluating the effluent to determine if water quality-based effluent limits are needed based on chemical specific numeric criteria, a projection of the receiving water concentration (downstream of where the effluent enters the receiving water) for each pollutant of concern is made. The chemical specific concentration of the effluent and ambient water and, if appropriate, the dilution available from the ambient water are factors used to project the receiving water concentration. If the projected concentration of the receiving water exceeds the numeric criterion for a specific chemical, then there is a reasonable potential that the discharge may cause or contribute to an excursion above the applicable water quality standard, and a water quality-based effluent limit is required.

As mentioned above, sometimes it is appropriate to allow a small area of ambient water to provide dilution of the effluent. These areas are called mixing zones. Mixing zone allowances will increase the mass loading of the pollutant to the water body, and decrease treatment requirements. Mixing zones can be used only when there is adequate ambient flow volume and the ambient water is below the criteria necessary to protect designated uses.

3. Procedure for Deriving Water Quality-Based Effluent Limits

The first step in developing a water quality based permit limit is to develop a wasteload allocation for the pollutant. A wasteload allocation is the concentration (or loading) of a pollutant that the Permittee may discharge without causing or contributing to an exceedance of water quality standards in the receiving water off the reservation.

Once the wasteload allocation has been developed, the EPA applies the statistical permit limit derivation approach described in Chapter 5 of the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001, March 1991, hereafter referred to as the TSD) to obtain monthly average, and weekly average or daily maximum permit limits. This approach takes into account effluent variability, sampling frequency, and water quality standards.

4. Water Quality-Based Effluent Limits

(a) **Toxic Substances**

This application will not be screened against the toxic substances found in the National Toxics Rule since the Quinault Indian Nation Moclips River Estates WWTP will not be required to submit Expanded Effluent Testing Data or Toxicity Testing Data because of a treatment plant design flow less than 1.0 MGD.

(b) **E. coli Bacteria**

A monthly E. coli monitoring requirement has been added to the permit to protect public health.

(c) **Total Residual Chlorine (TRC)**

This facility will not use chlorine for disinfection; therefore, no effluent limits are required for TRC.

(d) **pH**

Minimum and maximum pH values have been included in the permit in the range of 6.5 and 8.5 standard units.

(e) **Dissolved Oxygen**

Discharges from the Quinault Indian Nation Moclips River Estates WWTP are not expected to have an appreciable effect on the dissolved oxygen concentration in the Moclips River. However, BOD<sub>5</sub> limitations have been included in the permit to control the discharge of oxygen demanding constituents into the Moclips River.

(f) **Ammonia**

Due to the small size of the wastewater treatment plant and the fact that the treatment is extended aeration activated sludge process with drum microfiltration, this facility is not expected to have concerns with ammonia. However, there is limited data as to how much ammonia is present in the river and from the discharge. Therefore, the proposed permit includes requirements for monitoring ammonia upstream, and in the effluent for the next five years.



**APPENDIX D**  
**ENDANGERED SPECIES ACT**

Section 7 of the Endangered Species Act (ESA) requires federal agencies to request a consultation with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) regarding potential effects an action may have on listed endangered species. EPA requested lists of threatened and endangered species from USFWS in a letter dated September 27, 2000. In a letter dated November 16, 2000, the USFWS identified the Bald eagle (*Haliaeetus leucocephalus*) and Bull trout (*Salvelinus confluentus*) as threatened. In a phone call on November 30, 2000, the NMFS did not identify any threatened or endangered species. Neither agency identified any proposed or candidate species.

The following factors have been identified as possibly influencing the recovery of the Bull trout: the combined effects of habitat degradation, fragmentation and alterations associated with dewatering, required construction and maintenance, mining, grazing; the blockage of migratory corridors by dams or other diversion structures; poor water quality; incidental angler harvest; entrainment into diversion channels; and introduced non-native species.

Issuance of an NPDES permit for the Quinault Indian Nation Moclips River Estates wastewater treatment plant will not result in habitat destruction, nor will it result in significant changes in population that could result in increased habitat destruction for any threatened or endangered species that may occur in the vicinity of the discharge. The EPA has tentatively determined that issuance of the NPDES permit is **not likely to adversely effect** the Bald eagle or the Bull trout.